USGS science for a changing world

Earthquake Shaking **Green** Alert

GSN ANSS USAID FROM THE AMERICAN PEOPLE

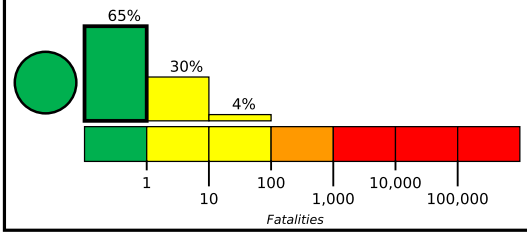
M 5.8, 4 km E of Tago, Philippines

Origin Time: 2020-07-27 17:32:44 UTC (Tue 01:32:44 local)
Location: 9.0225° N 126.2698° E Depth: 40.5 km

PAGER Version 4

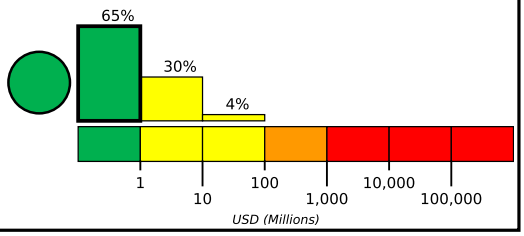
Created: 2 hours, 2 minutes after earthquake

Estimated Fatalities



Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

Estimated Economic Losses

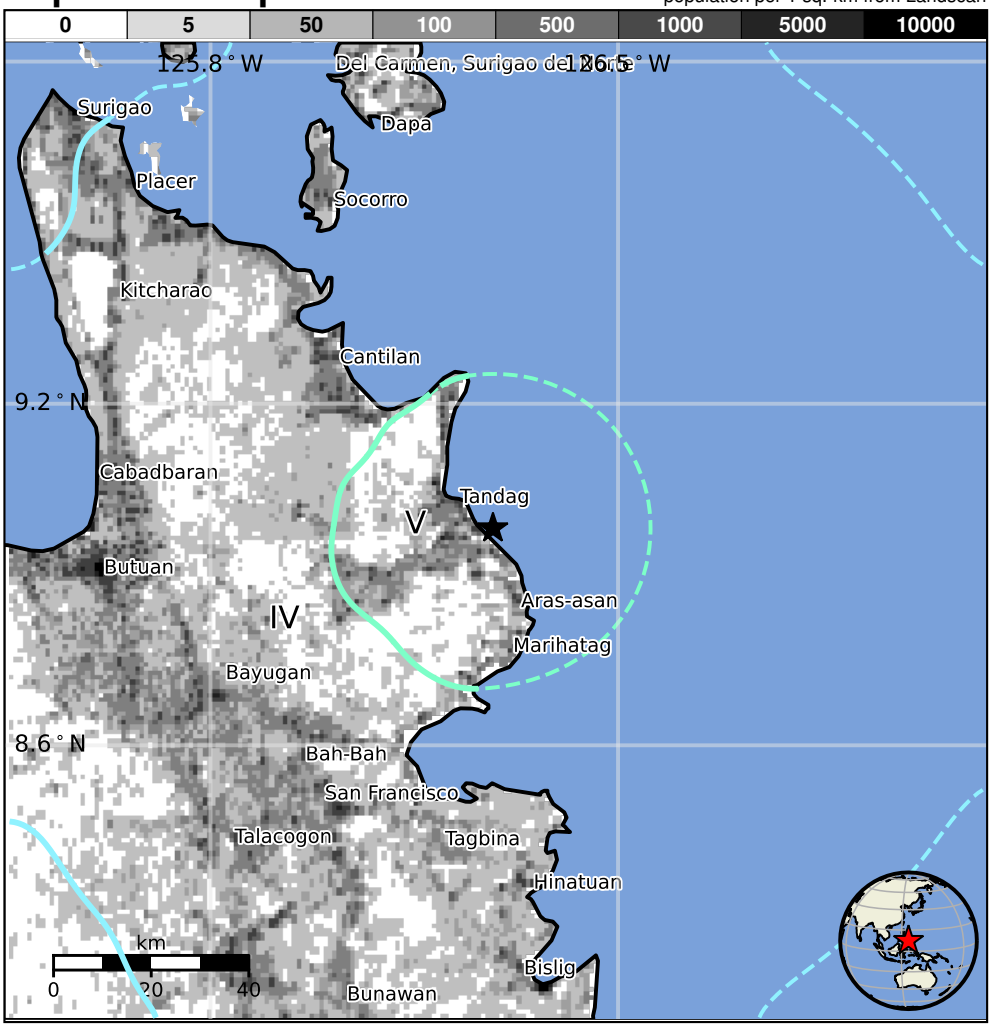


Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		–*	110k*	2,082k	247k	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

*Estimated exposure only includes population within the map area.

Population Exposure



Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are unknown/miscellaneous types and heavy wood frame construction.

Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1999-12-15	317	4.8	VI(34k)	1
1987-05-23	141	5.7	VII(70k)	1
1989-12-15	86	7.5	VIII(1k)	2

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

Selected City Exposure

from GeoNames.org

MMI	City	Population
V	Tago	6k
V	La Paz	2k
V	Bayabas	<1k
V	**Tandag**	**29k**
V	Cagwait	<1k
V	Bacolod	2k
IV	**Butuan**	**310k**
IV	Libertad	250k
IV	**Bayugan**	**41k**
IV	**Bislig**	**68k**
III	**Surigao**	**88k**

bold cities appear on map. (k=x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

https://earthquake.usgs.gov/earthquakes/eventpage/us6000b4ug#pager

Event ID: us6000b4ug